
INITIAL SITE RESPONSE PLAN

ROCKY FLATS PLANT



**EG&G ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE
MANAGEMENT RESPONSE PLAN
FOR THE
CHEMICAL SAFETY VULNERABILITY FIELD ASSESSMENT**

Introduction

The Department of Energy (DOE) Office of Environment, Safety and Health (EH) coordinated a Chemical Safety Vulnerability Review with the intent of identifying and characterizing conditions or circumstances involving potentially hazardous chemicals at DOE sites and facilities. As part of this project, a field verification review was conducted at the Rocky Flats Environmental Technology Site (RFETS) from May 2 to May 11, 1994. This field verification review was conducted by a team sponsored by EH and was an expansion of a 1994 self-evaluation of chemical vulnerabilities at the RFETS.

Five vulnerabilities were identified in the final draft assessment report dated May 11, 1994. These vulnerabilities were categorized as follows: One short-term vulnerability with medium to high priority; two short-term vulnerabilities with medium priority; one short-term vulnerability with low priority; and one medium-term vulnerability with medium priority. None of the conditions or circumstances identified requires immediate action to prevent severe consequences. A discussion is provided below for each vulnerability, and the actions taken or planned are described.

Response Summary

The first vulnerability identified was that a lack of accurate and complete chemical inventories impedes the effective analysis of hazards posed to workers. The current inventory is designed for Emergency Planning and Community Right-to-Know Act materials and is inadequate for general worker hazard assessments. Additionally, there is not currently a systematic, integrated approach to management of chemicals at RFETS that includes purchasing controls, receiving, handling, storage, and disposal of chemicals in a uniform manner. This vulnerability was characterized as short term based on probability of occurrence and medium to high priority based on the potential severity of consequences. EG&G RFETS has established programmatic ownership for a plantwide chemical management program within Engineering and Safety Services. Additionally, actions completed and planned are detailed in the attached vulnerability form.

The second and third vulnerabilities concluded that chemical hazards received less precedence and management attention than radiation hazards and RCRA requirements, respectively. Less emphasis on chemical safety may lead employees to believe that nuclear and regulatory emphasis takes precedence over chemical safety. These vulnerabilities were characterized as short term based on probability of occurrence, and medium priority based on potential severity of the consequences. RFETS has initiated mandatory reviews of all FY95 Major Activity Documents (MAD) by Health and Safety personnel. This effort is intended to be a first step in emphasizing resources needed for chemical inventory/tracking, provision of health and safety support, and maintenance of facilities housing chemicals.

The fourth vulnerability concluded that deterioration of facility physical condition has the potential to create chemical safety hazards. The level to which specific RFETS facilities are maintained depends on mission status, with RCRA-regulated facilities and activities receiving priority for staffing and budget. This finding was characterized as short term and of low priority. RFETS is working to improve maintenance systems, including development of a comprehensive Preventive Maintenance program for evaluation of the integrity of liquid contaminants plantwide.

Finally, the fifth vulnerability identified was that decisions on budget content and priorities delay correction of known chemical safety vulnerabilities. Specifically, it was found that the continued existence of some chemical vulnerabilities could be directly traced to the relatively low priority assigned to chemical hazards and to the ability of line managers to unilaterally decide to down-scope efforts related to safe management of chemicals. This vulnerability was characterized as medium term and medium priority. As previously noted, all FY95 MADs are being reviewed for risk priority by Health and Safety personnel. Additionally, long term modifications for the health and safety review of Capital Projects have been proposed.

More detailed description of observations and corrective actions for each of the five identified vulnerabilities are contained in the attached Chemical Safety Vulnerability Review Forms.

CHEMICAL SAFETY VULNERABILITY REVIEW

Site/Facility: Rocky Flats Environmental Technology Site

Vulnerability Number: CSRV-RFP-000-01

Task #	Vulnerability/Observation	Action/Product	Due Date	Responsible Person
1.1	Lack of accurate and complete chemical inventories impedes the effective analysis of hazards posed to workers.	<u>Short-term Corrective Action:</u> Programmatic ownership for plantwide chemical management has been assumed by the Engineering and Safety Services (E&SS) management organization. E&SS is responsible for integrating the various facets of chemical management. A chemical manager to oversee this effort was recently appointed (March 1994) by E&SS. Preparation of a comprehensive, plantwide Chemical Management Plan will begin shortly.	9/30/94	D. Costain
1.2		<u>Deliverable:</u> Chemical Management Plan <u>Short-term Corrective Action:</u> Health and safety considerations are included in the Chemical Tracking and Inventory Program (CTP). In addition, Health and Safety Practices Manual (HSP) Chapter 9.12 will be modified to include references to existing plant procedures that address health and safety concerns for chemicals.		
		<u>Deliverable:</u> Modification to HSP 9.12	9/1/94	D. Costain

CHEMICAL SAFETY VULNERABILITY REVIEW				
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Task #	Vulnerability/Observation	Action/Product	Due Date	Responsible Person
1.3		<p><u>Short-term Corrective Action:</u></p> <p>A description of the scope, responsibilities, and work processes of the CTP are provided herein. This plan addresses the need to define the mission and scope for chemical tracking and clearly establishes what can and cannot be expected from the existing program.</p> <p><u>Deliverable:</u> Chemical Tracking and Inventory Program Management Plan</p> <p><u>Deliverable:</u> Technical Procedure on Chemical Tracking</p> <p><u>Deliverable:</u> Training Report on Management Briefings and Chemical User Training on the CCS.</p>	<p>Complete</p> <p>9/1/94</p> <p>9/14/94</p>	<p>D. Costain</p> <p>D. Costain</p> <p>D. Costain</p>

CHEMICAL SAFETY VULNERABILITY REVIEW

Site/Facility: Rocky Flats Environmental Technology Site

Vulnerability Number: CSRV-RFP-000-01

Task #	Vulnerability/Observation	Action/Product	Due Date	Responsible Person
1.4		<p><u>Short-term Corrective Action:</u></p> <p>Several actions have been completed, and additional efforts are underway, to apply more formal processes to the development and maintenance of the CCS database and supporting operations.</p> <p><u>Deliverable:</u> Data entry desktop instructions for chemical tracking.</p> <p><u>Deliverable:</u> Revised CCS User's Manual (Appendix H)</p> <p><u>Deliverable:</u> Correct Known Inaccuracies in CCS Database.</p> <p><u>Deliverable:</u> Functional Requirements for CCS.</p>	<p>Complete</p> <p>Complete</p> <p>Complete</p> <p>8/26/94</p>	<p>D. Costain</p> <p>D. Costain</p> <p>D. Costain</p> <p>D. Costain</p>
1.5		<p><u>Short-term Corrective Action:</u></p> <p>HSP 9.12 defines procedures for chemical tracking which, if followed, would provide for accurate information on the CCS. Plantwide training for managers and chemical users in FY94 has served to educate plant personnel on their responsibilities for chemical tracking.</p>		

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Task #	Vulnerability/Observation	Action/Product	Due Date	Responsible Person
1.6		<p><u>Short-term Corrective Action:</u></p> <p>Establish line control for chemical management. The ownership and responsibility for maintaining chemical inventories must be clearly established for each individual facility. HSP 9.12 establishes the Operations Manager as responsible for chemical inventories in the facilities for which they are responsible. A proposal for more directed management of chemical inventories is given in Section 15.0 and will be reflected in the plantwide Chemical Management Plan.</p> <p><u>Deliverable:</u> Chemical Tracking and Inventory Program Management Plan.</p> <p><u>Deliverable:</u> Plantwide Chemical Management Plan.</p>	<p>Complete</p> <p>9/30/94</p>	<p>D. Costain</p> <p>D. Costain</p>

CHEMICAL SAFETY VULNERABILITY REVIEW**Site/Facility: Rocky Flats Environmental Technology Site****Vulnerability Number: CSRV-RFP-000-01**

Task #	Vulnerability/Observation	Action/Product	Due Date	Responsible Person
1.7		<u>Short-term Corrective Action:</u> A proposal to integrate the CCS and local databases and thus derive the best of both approaches to chemical management is given in Section 14.0 and will be reflected in the plantwide Chemical Management Plan. This proposal depends extensively on line control of chemical management and receipt of requested FY95 funds. Funds requested.	Complete	D. Costain

CHEMICAL SAFETY VULNERABILITY REVIEW				
Site/Facility: Rocky Flats Environmental Technology Site			Vulnerability Number: CSRV-RFP-000-02	
Task #	Vulnerability/Observation	Action/Product	Due Date	Responsible Person
2.1	Chemical hazards are provided disproportionately less management support than radiation hazards.	<p><u>Short-term Corrective Action:</u></p> <p>Conduct Industrial Hygiene and Safety (IH&S) reviews of all work package (budgets) Major Activity Documents during the FY95 preparation cycle. IH&S will place a priority risk rating on all activities proposed in the FY95 budget. Risk ratings will be a function of hazard to the public, environment, and worker safety in regard to severity and probability of occurrence.</p> <p><u>Start:</u> 8/8/94</p> <p><u>Status:</u> Initial Reviews - Complete</p>	9/30/94	J. M. Brooks

CHEMICAL SAFETY VULNERABILITY REVIEW

Site/Facility: Rocky Flats Environmental Technology Site

Vulnerability Number: CSR-V-RFP-000-02

Task #	Vulnerability/Observation	Action/Product	Due Date	Responsible Person
2.2		<p><u>Short-term Corrective Action:</u></p> <p>Integrate the fragmented chemical management activities into a consolidated Chemical Management Program for the Rocky Flats site. In FY95, activities of six different organizations and six work packages are being consolidated into this organization and into one work package (#50210).</p> <p>Develop and implement a technical and administrative program for control of chemicals entering the site and disposition of thousands of regulated and nonregulated chemicals, including Reactive and Unidentified. Significant improvements are required in all areas: automation of data bases; building-level computer control systems; inventory, tracking, reporting, and disposition. An efficient, effective, and responsive system must be implemented (cradle to grave concept) to ensure maximum possible safety for employees, the public, and the environment, and to ensure that all required DOE Orders, Federal and state environmental and safety laws and regulations are met.</p> <p>Request funding for establishment of:</p> <ul style="list-style-type: none"> - Disposition of 4000 excess chemicals - Chemical Exchange Program - MSDS Automation System - Facility Chemical Control Program - Reactive Chemical Program <p><u>Start:</u> 8/8/94 <u>Status:</u> Initial Unfunded Activity Request Risk Risk Assessment Ranking - High</p>	Complete	E. Trujillo

CHEMICAL SAFETY VULNERABILITY REVIEW				
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Task #	Vulnerability/Observation	Action/Product	Due Date	Responsible Person
2.3		<u>Long-term Corrective Action:</u> A senior industrial Hygiene and Safety (IH&S) representative will be appointed to the Capital Project Planning Organization/Board to identify chemical safety risk priorities to the Board for all major facility projects/upgrades.	12/19/94	R. E. Kell
2.4		<u>Long-term Corrective Action:</u> Prepare comprehensive Chemical Management Program.	9/14/94	D. Costain
2.5		<u>Long-term Corrective Action:</u> Implement Chemical Management Program upon receipt of funding requested in short-term actions above. Funding requests were prioritized as high, based on IH&S Risk Review. Continue to integrate the fragmented chemical management activities into a consolidated Chemical Management Program for the Rocky Flats site. In FY95, activities of six different organizations and six work packages are being consolidated into this organization and into one work package (#50210).	10/1/94	D. Costain

CHEMICAL SAFETY VULNERABILITY REVIEW

Site/Facility: Rocky Flats Environmental Technology Site

Vulnerability Number: CSRV-RFP-000-02

Task #	Vulnerability/Observation	Action/Product	Due Date	Responsible Person
2.5 (cont.)		<p>Develop and implement a technical and administrative program for control of chemicals entering the site and disposition of thousands of regulated and nonregulated chemicals, including Reactive and Unidentified. Significant improvements are required in all areas: automation of data bases; building-level computer control systems; inventory, tracking, reporting, and disposition. An efficient, effective, and responsive system must be implemented (cradle to grave concept) to ensure maximum possible safety for employees, the public, the environment, and to ensure that all required DOE Orders, Federal and state environmental and safety laws and regulations are met. Provide a Chemical Management Plan for the Rocky Flats site. There is currently no such plan for the site.</p> <p style="text-align: center;"><u>Excess Program</u></p> <p>Building Support/Excess Chemical Disposition of 4000 Excess Chemicals</p> <p style="text-align: center;"><u>Chemical Management Program</u></p> <p>SARA III - Tier II report to EPA SARA III - Form R Report to EPA Chemical Control Database Sitewide Chemical Inventory Building-level Chemical Information System OSHA/SARA III - MSDS Compliance Management</p>	10/1/94	D. Costain

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Task #	Vulnerability/Observation	Action/Product	Due Date	Responsible Person
2.5 (cont.)		<u>Unfunded Activities</u> Pollution Prevention Act, Chemical Exchange MSDS Auto Phase 1 - Procure and Installation MSDS Auto Phase 2 - Pilot System Facility Chemical Control - Phase 1 MSDS Auto Phase 3 - Operation Facility Chemical Control - Phase 2 Facility Chemical Control - Phase 3 Facility Chemical Control - Phase 4 SARA III - Vendor Train/PPA Conference Other Chemical Activities Reactive Chemical Program Unidentified Chemicals Special Projects, Studies, Substitution, Experts Hazardous Materials Management Interface	10/1/94	D. Costain

CHEMICAL SAFETY VULNERABILITY REVIEW

Site/Facility: Rocky Flats Environmental Technology Site

Vulnerability Number: CSRV-RFP-000-03

Task #	Vulnerability/Observation	Action/Product	Due Date	Responsible Person
3.1	RCRA requirements are given precedence over chemical safety.	<p><u>Short-term Corrective Action:</u></p> <p>Conduct Industrial Hygiene and Safety (IH&S) reviews of all work package (budgets) Major Activity Documents during the FY95 preparation cycle. IH&S will place a priority risk rating on all activities proposed in the FY95 budget. Risk ratings will be a function of hazards to the public, environment, and worker safety in regard to severity and probability of occurrence.</p> <p><u>Start:</u> 8/8/94</p> <p><u>Status:</u> Initial Reviews - Complete</p>	9/30/94	J. M. Brooks
3.2		<p><u>Long-term Corrective Action:</u></p> <p>A senior Industrial Hygiene and Safety representative will be appointed to the Capital Project Planning Organization/Board to identify chemical safety risk priorities to the Board for all major facility projects/upgrades.</p>	12/19/94	R. E. Kell

CHEMICAL SAFETY VULNERABILITY REVIEW				
Site/Facility: Rocky Flats Environmental Technology Site			Vulnerability Number: CSRV-RFP-000-04	
Task #	Vulnerability/Observation	Action/Product	Due Date	Responsible Person
4.1	Deterioration of facility physical condition has the potential to create chemical safety hazards.	<u>Short-term Corrective Action:</u> A comprehensive Preventive Maintenance program is being implemented to test and evaluate the integrity of liquid containment structures facility wide. <u>Status:</u> Presently Ongoing		F. Pope
4.2		<u>Long-term Corrective Action:</u> A Maintenance Implementation Plan has been developed to request funding for performance of predictive maintenance. Implementation in FY95 is dependent upon receipt of funding. IH&S reviews of Preventive and Predictive Maintenance Budget requests for FY 95 were conducted, and resulted in a high-priority risk ranking.		F. Pope

CHEMICAL SAFETY VULNERABILITY REVIEW

Site/Facility: Rocky Flats Environmental Technology Site

Vulnerability Number: CSRV-RFP-000-05

Task #	Vulnerability/Observation	Action/Product	Due Date	Responsible Person
5.1	Decisions on budget content and priorities delay correction of known chemical safety vulnerabilities.	<p><u>Short-term Corrective Action:</u></p> <p>Conduct Industrial Hygiene and Safety (IH&S) reviews of all work package (budgets) Major Activity Documents during the FY95 preparation cycle. IH&S will place a priority risk rating on all activities proposed in the FY95 budget. Risk ratings will be a function of hazards to the public, environment, and worker safety in regard to severity and probability of occurrence.</p> <p><u>Start:</u> 8/8/94</p> <p><u>Status:</u> Initial Reviews - Complete</p>	9/30/94	J. M. Brooks
5.2		<p><u>Long-term Corrective Action:</u></p> <p>A senior Industrial Hygiene and Safety representative will be appointed to the Capital Project Planning Organization/Board to identify chemical safety risk priorities to the Board for all major facility projects/upgrades.</p>	12/19/94	R. E. Kell